

**Title:** Examining associations between health, wellbeing and social capital: findings from a survey developed and conducted using participatory action research

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## **Declarations**

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## **Abstract**

*Purpose:* This study employed innovative methods to examine the associations between personal wellbeing, self-rated health and various aspects of social capital within a socio-economically disadvantaged town in northern England.

*Design:* A survey was developed and administered with input from local stakeholders (including residents), using a participatory action research (PAR) approach. Eleven lay interviewers were trained to pilot and deliver the final survey, which was completed either in person or online. 233 valid surveys were returned.

*Findings:* Respondents were aged between 17 and 87 years (mean 47.3, SD 17.4), 65.7% were female and 46.2% identified themselves as having a longstanding illness, disability or infirmity. Overall, respondents reported lower levels of personal wellbeing and social capital in comparison with UK averages, although free-text responses highlighted a strong sense of community spirit and pride in the town. Low wellbeing was strongly associated with poor health, social isolation and neighbourhood factors such as perceived lack of community safety and trust.

*Research implications:* PAR appears to be an acceptable approach in generating estimates of population characteristics associated with personal wellbeing.

*Practical implications:* The findings of this study may be used by policymakers to design services and interventions to better meet the needs of communities characterised by indicators of poor health and wellbeing.

*Originality:* This work constitutes part of a global trend to measure personal and societal wellbeing. A novel methodology has been used to examine the factors that influence wellbeing at a neighbourhood level.

## **Keywords**

Wellbeing, survey, neighbourhood, social capital, social isolation, participatory research

## **Introduction**

Wellbeing is a broad concept that is used widely both in policy and in everyday life, often without being clearly defined. It has been described as ‘a dynamic state, in which the individual is able to develop their potential, work productively and creatively, build strong and positive relationships with others, and contribute to their community’ (Foresight Mental Capital and Wellbeing Project, 2008, p.10). Wellbeing is often considered to have an objective component, involving the material and social factors that impact on quality of life, as well as a subjective component, relating to how people feel and function (Western and Tomaszewski, 2016). Conditions that are believed to enhance overall wellbeing include: good physical, mental and social health; financial and personal security; rewarding employment; inclusive communities; and attractive environments (DEFRA, 2011, Michaelson et al., 2012). Empirical evidence has demonstrated the ways in which wellbeing helps to promote and protect health by contributing to the effective functioning of multiple biological systems (Ryff et al., 2004). High wellbeing can increase resistance to illness, speed up physiological recovery and increase survival rates, while low wellbeing is associated with slower wound healing (Cohen et al., 2003, J-E De Neve et al., 2013, Kiecolt-Glaser et al., 1995, Lamers et al., 2012).

Interest in the nature and determinants of subjective wellbeing has grown rapidly since scientific study of this concept began in the late twentieth century (Campbell et al., 1976, Kahneman et al., 1999, Diener et al., 1985). There has been increasing recognition internationally of the need to develop comprehensive wellbeing indicators, in line with the argument that the welfare of nations should not be measured purely in terms of economic growth (ONS, 2014, Miles et al., 2008, Stiglitz et al., 2009). Gross domestic product (GDP) has been widely used as a measure of societal progress, yet it was never designed to be a comprehensive measure of prosperity. The European Commission’s

'Beyond GDP' initiative set out to develop more inclusive indicators in order to address contemporary global challenges like climate change and poverty (European Commission, 2018). A declaration issued at the 2007 Organisation for Economic Co-operation and Development (OECD) World Forum called for high-quality, fact-based information on societal wellbeing and the OECD subsequently published guidance on its measurement (OECD, 2013). This was predated by the launch of the UK's National Wellbeing Programme in 2010, prompted, in part, by the demand for subjective wellbeing measures to be used in the policy-making process (Hicks et al., 2013). According to the Office for National Statistics (ONS), 'Wider and systematic consideration of well-being has the potential to lead to better decisions by government, markets and the public and, as such, better outcomes' (ONS, 2013). Monitoring changes over time at the national level, as well as examining differences between local areas and population sub-groups, is another important motivation for the collection of wellbeing data.

Subjective wellbeing has been measured in the UK since 2011, when the Annual Population Survey (APS) first included the four questions shown in box 1 (ONS, 2016a). These questions – known as the ONS4 – were developed from established research and in consultation with experts working in the field (Dolan et al., 2011, Tinkler and Hicks, 2011). They draw on three main theoretical approaches: the *evaluative* approach (asking people to reflect on their satisfaction with life); the *eudemonic* approach (asking people to consider the extent to which their life has meaning); and the *experience* approach (asking about positive and negative experiences and emotions) (Tinkler and Hicks, 2011). Analyses of APS data gathered since the introduction of the ONS4 indicate that reported wellbeing has improved across each of these measures (ONS, 2016b). However, there was no improvement in ratings of happiness, anxiety and feeling that things in life are worthwhile between 2014-15 and 2015-16. This was the first time that year-on-year improvements were not observed since the measures were introduced. Furthermore, people living in London reported lower average ratings for all measures except happiness, and those in Northern Ireland reported higher average ratings for all measures except anxiety. Between January and December 2017, Scotland was the only UK country

to show improvements across any of the measures (ONS, 2018c). These results indicate that not only were there disparities between the UK regions, but that wellbeing could be in decline for reasons that might include uncertainties surrounding the economy, governance and global security (ONS, 2016b). It is therefore more important than ever to understand the factors that influence wellbeing at a local level.

*Box 1: Four ONS questions on personal wellbeing (ONS4)*

1. Overall, how satisfied are you with your life nowadays?
2. Overall, to what extent do you feel the things you do in your life are worthwhile?
3. Overall, how happy did you feel yesterday?
4. Overall, how anxious did you feel yesterday?

Respondents give answers on a scale of 0 to 10, where 0 is 'not at all' and 10 is 'completely'.

The APS is part of the Integrated Household Survey, which provides estimates from approximately 340,000 respondents – the biggest pool of UK social data after the census. Data are available for almost every local authority area but sample sizes are often very small, making it difficult to compare areas reliably. For example, in 2014-15 there were 890 respondents from County Durham, a mixed rural and urban county in northern England with more than 517,000 inhabitants. Shildon is a small town in County Durham, with a population of almost 10,000 residents and a history linked to the expansion of coal mining and the growth of the railways. The decline in these industries and corresponding unemployment go some way to explaining why Shildon performs poorly on a range of health and social indicators. For example, 68.8% of residents live in the 30% most deprived areas nationally, 33.8% of local adults smoke and 34.0% are classified as obese (Bishop Auckland & Shildon Area Action Partnership, 2016). An innovative asset- and place-based approach – known as the Shildon Health Express programme – was implemented in 2013 in an effort to address these

complex issues. It involved close partnership working between local government, health service, housing and third sector partners to achieve the broad vision of making Shildon 'a healthier, happier place to live'.

One of the core Health Express activities involved establishing a baseline level of wellbeing for Shildon. This was achieved by developing a wellbeing survey tailored to the needs of the community and incorporating the ONS4 to facilitate regional and national comparisons. The specific objectives of this study were to: i) develop a community wellbeing survey in co-production with local partners; ii) pilot and refine the survey instrument; and iii) administer the final survey. The study aimed to extend previous work by examining associations between subjective wellbeing and self-reported health, as well as exploring the influence of understudied factors such as social isolation, community involvement and perceptions of the neighbourhood environment. The majority of previous research has focused on poor mental health and therefore more evidence is needed to understand the role of place in influencing a positive sense of wellbeing (Toma et al., 2015).

## **Methods**

### *Study design*

A cross-sectional design was employed, using a survey instrument developed in collaboration with local public health practitioners and the Health Express steering group. The survey was then conducted by trained members of the community, following a participatory action research (PAR) approach (Pain et al., 2011). Strengths of this approach include the increased likelihood of shared characteristics, experiences and networks between the lay interviewer and respondent, creating a platform for the exchange of sensitive and personal information. It can facilitate access to typically hard-to-reach populations, help to even out inherent power relations and enrich the quality of the data (Sixsmith et al., 2003). However, it also creates emotional risk for both parties, highlighting the importance of adequate preparation and training. Other challenges associated with PAR include the

potential for inter-personal and inter-organisational conflicts, and broken trust if participation does not generate expected outcomes (Estacio, 2012, Tetui et al., 2017). In this case, the Health Express partners were committed to ensuring that the results would lead to meaningful action. The lay interviewers were also provided with information about Health Express to distribute to respondents who might benefit from accessing the programme.

The final survey instrument consisted of 28 questions (plus two screening questions) in six parts: personal wellbeing; self-reported health; relationships and social support; community involvement; views on the local area; and socio-demographic characteristics. See Table 1 for details. The primary outcome measures were the ONS4 questions, with self-reported health (using the EQ-5D™ visual analogue scale/VAS) and social capital (using questions from the ONS Social Capital Question Bank (Ruston and Akinrodoye, 2002)) as secondary outcomes. The survey also included open-ended questions to gather qualitative data on respondents' perceptions of the town. Novel items were based on suggestions from the Health Express steering group; for example, members advised asking respondents what they would change about Shildon to make it a better place to live. The survey was designed to be completed in under 10 minutes in order to minimise the burden on both the interviewers and respondents.

Draft versions were pre-tested and piloted with community members, following best practice in survey design (McColl et al., 2002, Oppenheim, 1998). The questions were discussed with a group of 10 local residents of mixed ages and genders, to ensure that the wording was matched to both the concepts being measured and the population studied. Suggestions were also gathered on the best ways to raise awareness of the study and maximise the number of responses, for example, by using the local free paper and Health Express Facebook group. The final survey was then piloted to ensure that the interviewers and respondents were able to follow the directions as indicated.

The study received approval from the School of Medicine, Pharmacy and Health Research Ethics Sub-Committee at Durham University (ref. no. ESC2/2014/PP02).



### *Study sample*

No formal sample size calculation was undertaken due to the exploratory nature of the study. Instead, it was hoped that the survey would reach up to 5% of the adult population of Shildon, giving a maximum potential sample size of 440. There was no minimum sample size, although the goal was to achieve a diverse sample in terms of age, gender and other pertinent characteristics (e.g. occupation and home ownership) by accessing respondents in a range of settings and using various methods (see below). Individuals who satisfied the following criteria were eligible for inclusion: currently living in Shildon; over the age of 16; able to read and respond in English; and consent to take part in the survey.

### *Data collection*

The main mode of data collection involved face-to-face interviews undertaken by trained lay interviewers (n=11) either in the community or in respondents' homes. Although this method can be time-consuming and labour-intensive, it helps to ensure a higher response rate and increases the likelihood that answers will be high quality (Czaja and Blair, 2005). It is also more appropriate for asking potentially sensitive questions and directing respondents to sources of further support. Eight volunteers were recruited from local community groups and trained to administer the survey during half-day sessions on basic research skills. They were asked to conduct the survey primarily with members of their social networks, as well as approaching people in the community on an opportunistic basis, in settings where both parties felt comfortable and could talk freely. Three lay health advisers employed by Health Express were also trained and asked to administer the surveys as part of their day-to-day activities, i.e. while undertaking outreach, linking with community groups, and delivering lifestyle interventions.

In order to maximise the number and diversity of responses, an internet-based version of the survey was developed using the Bristol Online Surveys (BOS) platform. This was identical to the paper

version, with the exception of the question requiring use of the EQ-5D™ VAS as a prompt. Instead, respondents were asked to indicate how good or bad their health was that day on a scale of 0 to 100. Internet-based surveys tend to be very low cost but have low response rates and the quality of answers can be poor (Czaja and Blair, 2005). It was not possible to calculate a response rate for the survey given the various routes used to distribute the link. It was circulated via email (to a distribution list of over 1200 individuals who live, work, study or volunteer in or around Shildon), posted on social media, and advertised using flyers in local GP practices. Screening questions were used to ensure that the survey was completed only by adults living in Shildon.

### *Data analysis*

In total, 233 valid surveys were returned (163 conducted in person and 70 completed online). Responses to closed questions were analysed using a combination of Microsoft Excel and the Statistical Package for the Social Sciences (SPSS) v.20. Cross-tabulations and Chi-squared tests were performed, and a range of descriptive and summary statistics produced. Responses to open-ended questions were copied into a Microsoft Excel spreadsheet and analysed using thematic analysis (Boyatzis, 1998). Each response was extracted, examined and sorted into emerging themes and sub-themes. This process was conducted collaboratively by two members of the study team, before being independently verified by a third member following best practice in qualitative research (Denzin and Lincoln, 2011). Preliminary findings were discussed at a Health Express steering group meeting, as well as being shared with the lay interviewers during an informal feedback and verification session.

## **Results**

### *Sample characteristics*

The mean age of respondents was 47 years, two-thirds were women, over one-third were in paid work, and almost half owned their own homes (Table 2). Many reported that they had lived in

Shildon their entire lives, while only 2.6% had lived in the town for less than a year. Postcode data were used to determine the geographical spread of respondents, demonstrating a relatively even split between three neighbourhoods: Byerley, Sunnydale and Thickley<sup>3</sup>. There were no major socio-demographic differences between those who completed the survey in person or online, but online respondents had higher levels of self-reported health (a mean EQ-5D™ score of 74.5 in comparison with 64.7). However, there was a higher proportion of missing or invalid responses to this question in the online survey (17.1% in comparison with 4.3%).

[Insert table 2 here]

### *Personal wellbeing*

Responses to the ONS4 questions indicated relatively low levels of personal or subjective wellbeing. Mean scores for each measure are shown in Table 3, alongside the latest UK figures (ONS, 2018a), showing that average levels of life satisfaction and happiness were lower amongst respondents from Shildon, while reported levels of anxiety were higher. People living in Shildon were also less likely to report high wellbeing (a score of 9-10) and more likely to report low wellbeing (a score of 0-4) in comparison with the UK as a whole. For example, 27.7% of respondents had a high level of happiness in comparison with 35.1% nationally, while 11.7% had a low level of happiness in comparison with 8.26% nationally. The only exception related to feeling that things in their lives were worthwhile; 36.4% of respondents from Shildon reported high wellbeing on this measure, in comparison with 35.7% nationally.

[Insert table 3 here]

Higher wellbeing scores were observed among those who said that they enjoyed living in Shildon, in terms of life satisfaction ( $p < 0.001$ ), happiness ( $p = 0.018$ ) and feeling that things in life were worthwhile ( $p = 0.001$ ). The same was also true of those who felt their community was a good place

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<sup>3</sup> Locally, Thickley is known to be the most deprived neighbourhood in Shildon, while Sunnydale is the least deprived. Objective data on level of socioeconomic deprivation are not available at neighbourhood level.

to be ( $p=0.007$ ,  $p=0.009$  and  $p<0.001$  respectively). There was no association with anxiety. Those who felt safe walking alone in their neighbourhood after dark reported higher life satisfaction ( $p=0.031$ ) and feeling that things in life were worthwhile ( $p=0.023$ ), while respondents who did not believe that a lost purse or wallet would be returned to them reported higher anxiety ( $p=0.021$ ). Members of local groups, clubs or organisations had higher levels of happiness ( $p=0.014$ ), life satisfaction ( $p=0.013$ ) and feeling that things in life were worthwhile ( $p=0.004$ ), but no differences in anxiety. Paid work was associated with wellbeing in terms of things in life being worthwhile ( $p=0.004$ ), but not in terms of happiness, life satisfaction or anxiety.

### *Self-reported health*

The mean response to the EQ-5D™ VAS was 67.3 (SD 20.9), which is significantly lower than the published UK population norm of 82.8 (Szende et al., 2014). Those who identified themselves as having a longstanding illness, disability or infirmity had a lower mean score (59.6, SD 20.0) than with those who did not (73.6, SD 19.8). The most common reported illnesses were depression or anxiety (24.5%) and high blood pressure (20.8%).

Higher EQ-5D™ scores were seen among those who said they enjoyed living in Shildon ( $p=0.018$ ) and their local community was a good place to be ( $p=0.029$ ). In contrast, those who were unable to work due to illness or disability ( $p<0.001$ ), were less socially active than other people their age ( $p=0.005$ ) and had no-one they could ask for support in a time of crisis ( $p<0.001$ ) had lower scores.

Respondents who did not feel safe walking alone in their neighbourhood after dark were also significantly more likely to have lower scores ( $p=0.003$ ). Those who had depression and anxiety were less likely than those with other conditions to feel happy ( $p=0.005$ ) or that things in their life were worthwhile ( $p=0.005$ ). There were no significant differences in self-reported health by age, gender or living situation.

### *Social networks and isolation*

The majority of respondents had friends or acquaintances in the local area that they saw on a regular basis, had social contact with in the last two weeks, and could ask for support in a time of crisis. However, almost one-third said they felt isolated at times. Respondents were also asked how often they took part in social activities in comparison with other people of their age. More than one-third (37.3%) answered either 'less than most' or 'much less than most', while almost one-quarter (22.6%) answered 'more than most'. Table 4 shows a largely positive picture of social networks in Shildon in comparison with figures taken from an analysis of social capital in the UK (ONS, 2015).

[Insert table 4 here]

Feelings of social isolation were observed more often among respondents who were unable to work due to illness or disability ( $p < 0.001$ ), engaged in unpaid care work ( $p < 0.001$ ) or renting their home from a housing association ( $p < 0.001$ ). In contrast, those who had lived in the town the longest ( $p < 0.001$ ) and were members of local clubs, groups or organisations reported being less socially isolated ( $p < 0.001$ ). Men ( $p < 0.001$ ), respondents who were unable to work due to illness or disability ( $p = 0.001$ ) and had worse self-reported health ( $p < 0.001$ ) were less likely to have anyone they could ask for support in a time of crisis. There were no significant differences by age.

### *Social capital*

Most respondents reported that they enjoyed living in Shildon and thought their local community was a good place to be, particularly those who were retired and owned their own homes. Around half were active in the community, in terms of engaging in volunteering or charity work, and being members of local groups, clubs or organisations. The survey responses compared favourably with the national picture for the UK (Table 5) (ONS, 2015). However, they also indicated relatively low levels of perceived community safety and trust. Responses differed by gender, with women being less likely than men to report feeling safe walking in the areas where they lived after dark (39.1% vs. 62.0%) and believing that a lost purse or wallet would be returned to them (17.2% vs. 27.8%). There

were also large differences in these measures between the most and least deprived neighbourhoods in Shildon; 36.2% vs. 59.0% for community safety and 17.2% vs. 34.4% for neighbourhood trust. Home owners and those in paid employment were more likely to report feeling safe ( $p<0.001$  and  $p=0.001$  respectively) and believing that a lost purse or wallet would be returned to them ( $p<0.001$  and  $p=0.016$ ).

[Insert table 5 here]

The survey included space for participants to describe Shildon in three words. *'Friendly'* was used most frequently (33 uses), followed by *'community'* (13), *'dirty'* (9), *'family'* (8) and *'home'* (8). Analysis of the free-text responses highlighted a strong sense of community spirit and pride, but indicated that this might be under threat due to issues relating to housing, employment, crime and anti-social behaviour. Some responses revealed a feeling of abandonment, with Shildon being described as *'deprived'*, *'isolated from other communities'* and *'left behind by the government'*. The town's social problems were often seen as being due to a combination of *'bad landlords bringing the town down'* and *'people renting who don't come from Shildon originally and who always seem to bring trouble'*. In contrast, local people were described as being *'down to earth'* and *'supportive'*. Shildon was described as a *'warm, close-knit community'*, although some respondents worried that this closeness was dwindling.

## Discussion

Our results indicate that respondents to the Wellbeing in Shildon survey generally had lower levels of personal wellbeing and self-reported health in comparison with the UK as a whole. While it is not possible to determine the direction of causality in a cross-sectional survey, there is increasing recognition that low wellbeing is both a cause and a consequence of poor health (Ryff et al., 2004, J- E De Neve et al., 2013, Lamers et al., 2012). Those with lower levels of self-reported health, particularly those with depression or anxiety, were less likely to report feeling that things in their

lives were worthwhile. Respondents generally reported good personal relationships and local networks, with the majority having someone that they could rely on for support. However, around one-third stated they sometimes felt isolated from others, which was associated with being unable to work due to illness or disability, being engaged in unpaid care work, and renting their home from a housing association. Recent evidence from a national survey on loneliness supports these associations, but also identifies links with age and gender that were not found in the Shildon survey (ONS, 2018b). Those who had lived in the area the longest were significantly less likely to report feeling socially isolated and more likely to report feeling satisfied with their local area. Previous research on this subject is mixed, with some studies showing that residential stability is associated with better mental health (De Graaf et al., 2002) and others observing no effect of length of residence (Toma et al., 2015).

In keeping with findings from the empirical literature (Holt-Lunstad et al., 2010, Holt-Lunstad et al., 2015), indicators of social capital such as respondents' social networks, satisfaction with their local area and levels of community involvement were associated with health and wellbeing. High levels of social capital and trust enable people to feel safe in their communities, while lower levels of trust can be an indicator of low social cohesion and community wellbeing (ONS, 2017). In the present study, women and those living in the most deprived neighbourhood were significantly less likely to report feeling safe walking in their local area after dark or believing that a lost purse or wallet would be returned to them. Previous research has identified associations between experiences of wellbeing and structural dimensions of inequality, as well as categorical inequalities such as gender and ethnicity (Western and Tomaszewski, 2016, Toma et al., 2015). The extent to which wellbeing contributes to these inequalities needs to be better understood and further researched. Our sample as a whole reported relatively poor neighbourhood trust and perceived community safety, in spite of the majority indicating that they enjoyed living in Shildon and that their local community was a good place to be. Responses to the free-text survey questions suggested that there remains a strong sense of community spirit and pride in the town, but that this could be under threat due to issues relating

to housing, employment and crime. Shildon was frequently described as a friendly, supportive and close-knit community, and its problems tended to be attributed to 'others' who had moved into the town from outside the area.

This study is part of a global trend towards developing indicators of societal and personal wellbeing (ONS, 2013, Stiglitz et al., 2009, Tinkler and Hicks, 2011). The benefits of an increased focus on wellbeing include fresh understanding of the effects of government policy on people, and a better appreciation of the implications for welfare and quality of life (Whitehall Wellbeing Working Group, 2005). For example, many newcomers to northern towns like Shildon have relocated from other areas as a consequence of the UK government's policies on austerity and immigration, which may represent moderators or mediators in the association between social capital and wellbeing. Moving beyond the problems and deficits exhibited by some communities can also help in empowering local people to contribute to improvements in their own lives (Michaelson et al., 2012). In the present study, a sample of local residents benefitted by receiving training in research skills and gaining practical experience by administering the survey with their friends and neighbours. Respondents subsequently gained a better understanding of the Health Express programme and other opportunities to get involved in their local community through the information distributed by the lay interviewers. This participatory approach is consistent with the recommendations of the Marmot strategic review of health inequalities in England, in terms of creating and developing healthy and sustainable places and communities (Marmot, 2010).

Increasingly, enhanced wellbeing is being seen as both a policy goal in itself and a means of achieving particular outcomes (Whitehall Wellbeing Working Group, 2005, Tinkler and Hicks, 2011). A wealth of evidence suggests that wellbeing can be improved by focusing on: treating mental ill-health with the same importance as physical ill-health; building social and emotional skills at school and in work; aiming for stable economic growth, low unemployment and better wellbeing at work; and measuring wellbeing as a policy goal (What Works Wellbeing, 2018). At the community level,



potential ways to enhance wellbeing include: encouraging volunteering; tackling loneliness; improving the built environment; and empowering citizens to become involved in local decision-making (Bagnall et al., 2018). The Health Express programme set out to promote wellbeing amongst Shildon residents directly, through the provision of health-related activities and events, and indirectly, by providing opportunities for training, volunteering and employment. The survey results have been used to intensify and focus these efforts on particular population groups; for example, delivering targeted activities in the most disadvantaged neighbourhood and offering 'welcome events' for new housing association tenants. The programme also involved efforts to promote social cohesion and civic pride in Shildon, by organising family fun days and bringing high-profile events to the town.

This was a small-scale, time-limited piece of work with a number of limitations. The sample size was lower than anticipated, in spite of various strategies employed to increase the number of responses. We received completed surveys from 233 Shildon residents, which equated to approximately 2.8% of the local adult population. The Annual Population Survey (APS) typically has a sample size of around 320,000, which equates to less than 1% of the adult population across the UK. We can therefore be reasonably satisfied with our final sample size, although the small numbers in some sub-groups reduced the power of our analyses. Although some of the differences in individual survey items were small, the overall trend across scores suggests a meaningful deviation from published population norms. As with the APS, this was a sample survey rather than a census and so it provides estimates of population characteristics rather than exact measures. Furthermore, our sample was not representative of the local population as a result of the recruitment strategies employed. The interviewers were encouraged to draw on their own networks, which skewed the sample towards women, longstanding residents, and members of existing groups. Different approaches might be required to engage larger numbers of men and those new to the local area, although we were relatively successful in engaging people from different age groups and occupational categories. In

localities with a more diverse ethnic mix, attention would need to be paid to ensuring that black and minority ethnic groups are also engaged and included.

Selection bias is likely to have been an issue with responses to the online survey, while response bias may have been an issue during the in-person survey interviews. During the feedback session, one interviewer admitted gently challenging people who said they did not believe that a lost purse or wallet would be returned to them. This highlights one of the challenges of conducting a survey designed to fulfil the dual purposes of gathering valid data on subjective wellbeing and contributing to the delivery of a place-based wellbeing programme. The involvement of the Health Express steering group and residents in developing, piloting and administering the survey helped to ensure that the final survey format and content were feasible, appropriate and acceptable locally. However, concessions had to be made in terms of rigour. The ONS4 questions and EQ-5D™ VAS have been widely used in other surveys, but many of the other questions were developed or adapted for this specific study, thereby restricting our ability to draw comparisons with national and international datasets. A number of statistical tests were performed, yet no adjustments were made to the p-value criteria, as the study was exploratory, not confirmatory, and such adjustments would have eliminated our statistical power (Rothman, 1990). Some of the results are therefore likely to represent false positives, while there is also the possibility of false negatives. However, we followed a systematic approach in pre-testing and piloting the survey, and in sharing and gathering feedback on early findings, and are therefore confident in our results.

## **Conclusions**

The purpose of this study was to design and administer a survey to assess baseline levels of community wellbeing in a small, socio-economically disadvantaged town in northern England. It provided a 'snapshot' of the local population which could then be used to inform policy, practice and

intervention development by Shildon Health Express, a place-based wellbeing programme. However, the results also have wider applicability in terms of identifying population sub-groups who report low personal wellbeing, self-reported health and social capital. Future interventions should be developed and targeted towards these groups, which include people who are unable to work due to an illness or disability, engaged in unpaid care work, and living in particular 'high need' neighbourhoods. There also needs to be recognition that the strong sense of civic pride in some previously close-knit communities is perceived as being eroded and that ongoing efforts to promote social cohesion are required. Repeating the community wellbeing survey at different time points and in different localities would provide important data on levels of health, wellbeing and social capital across a wider area, and how these are being impacted by policies and services. These data would also help policy-makers, commissioners and practitioners to target services at the groups or areas with highest need.

## Tables

Table 1: Survey overview

| Section                    | Questions   | Response options   |
|----------------------------|---|--|
| Screening questions        | i) Do you live in Shildon?<br>ii) Are you over the age of 16?   | Yes / No<br>Yes / No   |
| 1. Your personal wellbeing | 1a) – d) ONS4 questions   | Scale of 0 to 10   |
| 2. Your health             | 2a) EQ-5D™ visual analogue scale<br>2b) Do you have any longstanding illness, disability or infirmity?<br>2c) If yes, could you please tell us about those problems?  | Scale of 0 to 100<br>Yes / No<br>Heart disease / angina / heart attack / stroke / high blood pressure / diabetes / COPD / asthma/ depression / anxiety / liver disease / kidney disease / other (please specify) |
| 3. Your relationships      | 3a) Do you have friends or acquaintances in this area that you see on a regular basis?<br>3b) Have you had social contact with a relative, friend or neighbour in the last two weeks?<br>3c) Compared to other people of your age, how often would you say you take part in social activities?<br>3d) If you needed to, could you ask someone for support in a time of crisis?<br>3e) Do you ever feel isolated from others?  | Yes / No<br><br>Yes / No<br>Much less / less / about the same / more than / much more than most<br><br>Yes / No<br>Yes / No  |
| 4. Your community          | 4a) Do you enjoy living in Shildon?<br>4b) Do you think your local community is a good place to be?<br>4c) Do you feel safe walking alone in the area where you live after dark?<br>4d) If you lost your purse or wallet in this area, do you trust that it would be returned to you?<br>4e) Do you think you can have influence over local decision-making?<br>4f) Have you taken part in any volunteer or charity work in the last 12 months?<br>4g) Are you a member of any groups, clubs or organisations in Shildon? | Yes / No<br>Yes / No<br><br>Yes / No<br>Yes / No<br>Yes / No<br><br>Yes / No<br>Yes / No   |
| 5. Your views              | 5a) What three words (or sentence) would you use to describe Shildon?<br>5b) If you could change one thing about Shildon to make it a better place to live, what would it be?<br>5c) Have you heard of Shildon Health Express?<br>5d) Is there anything else you would like to tell us?   | Free text<br><br>Free text<br><br>Yes / No<br>Free text  |

|              |   |  |
|--------------|---|--|
| 6. About you | 6a) Are you...?<br>6b) How old are you?<br>6c) What is your postcode?<br>6d) How long have you lived in Shildon?<br>6e) Do you...?<br><br>6f) What do you do at the moment? | Male / Female<br>Age in years<br>Full postcode<br>Time in years / months<br>Own your own home / rent<br>from a private landlord /<br>rent from a housing<br>association / live with<br>parents or family / other<br>(please specify)<br>In full time education or<br>training / in paid work<br>(please specify type of<br>contract, e.g. FT/PT, zero<br>hours) / looking after the<br>home or family / unpaid<br>carer / unemployed and<br>looking for work / unable to<br>work due to illness or<br>disability / retired / other<br>(please specify) |
|--------------|---|--|

Table 2: Participant characteristics (n= 233)

| Variable   | Sample      |
|--|-------------|
| Age in years: mean (SD)                              | 47.3 (17.4) |
| Gender (%): Women                                    | 65.7        |
| Men  | 34.3        |
| Occupation (%): In paid work                         | 37.2        |
| Retired  | 25.5        |
| Unable to work due to illness/disability             | 10.4        |
| Looking after home/family                            | 9.1         |
| Unemployed and looking for work                      | 7.8         |
| Living situation (%): Own their own home             | 48.7        |
| Renting from a housing association                   | 30.0        |
| Renting from a private landlord                      | 12.6        |
| Living with parents/family                           | 7.0         |
| Neighbourhood (%): Thickley ( <i>most deprived</i> ) | 38.9        |
| Byerley  | 29.9        |
| Sunnydale ( <i>least deprived</i> )                  | 31.4        |
| Years lived in Shildon: mean (SD)                    | 32.9 (20.1) |
| Long-standing illness, disability or infirmity (%)   | 46.2        |

*Table 3: Personal wellbeing*

| <b>ONS4 measures</b>                       | <b>Shildon average</b> | <b>UK average</b> |  |
|--|------------------------|-------------------|--|
| Life satisfaction                          | 7.23                   | 7.69              |  |
| Feeling that things in life are worthwhile | 7.63                   | 7.88              |  |
| Happiness                                  | 7.15                   | 7.53              |  |
| Anxiety                                    | 3.36                   | 2.91              |  |

*Table 4: Social networks and isolation*

| <b>Measures</b>                                       | <b>Shildon (%)</b> | <b>UK (%)</b> |
|---|--------------------|---------------|
| Friends or acquaintances in the local area            | 90.4               | 97.0          |
| Regular social contact*                               | 96.9               | 63.3          |
| Having someone to rely on during times of crisis      | 93.4               | 86.1          |
| Reporting feelings of loneliness and social isolation | 30.7               | 35.0          |

\*N.B. This was defined in the local survey as having any social contact in the last two weeks (as recommended by residents during the pre-testing phase), whereas the comparable national figure involves the proportion of people who meet socially with friends, relatives or work colleagues at least **once a week**.



*Table 5: Social capital*

| <b>Measures</b>   | <b>Shildon (%)</b> | <b>UK (%)</b> |
|---|--------------------|---------------|
| Enjoy living in their local area                                  | 83.3               | 86.0          |
| Feel their community is a good place to be                        | 78.3               | n/a*          |
| Taken part in any volunteer or charity work in the last 12 months | 46.3               | 19.0          |
| Membership of local groups, clubs or organisations                | 50.7               | 53.0          |
| Think they can have influence over local decision-making          | 33.9               | 34.0          |
| Feel safe walking alone in their local area after dark            | 48.2               | 73.5          |
| Trust that a lost wallet/purse would be returned                  | 22.2               | n/a*          |

\*n/a denotes that there are no comparable national statistics for these indicators. However, ONS survey data indicate that 63% of people say they 'feel they belong to their local area' and 65% say that 'most people in their neighbourhood can be trusted'.

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